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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,836	11/24/2003	Takashi Kano	SERA:001	3617

7590 04/16/2007  
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Ashburn, VA 20146-0826

EXAMINER
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STEVENS, THOMAS H

ART UNIT	PAPER NUMBER
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2121

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/720,836

Applicant(s)

KANO ET AL.

Examiner

Thomas H. Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1,3-23 were examined.

#### ***Section I: Final Rejection***

##### ***Specification***

2. Applicants are reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because its less than 50 words. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,3-23 are rejected under 35 U.S.C. 102(b) as being anticipated by the research paper by Jones et al., titled, "Simulation of a Lineboard Paper Machine Project 3471 Report 5" (hereafter Project 3471). Project 3471 teaches an abstract simulation paper modeling program.

Claim 1. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus comprising: a three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph) data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) input unit configured to input three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph) data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of a part used for transportation (pg.23, last paragraph, line 2 "transport of fine particles in the mat") of a sheet; a converter (defined in the specification as "to be passed to a simulator with creating a two-dimensional drawing pg. 6, lines 6-8, thus selecting data or datum; pg. 30, 1st paragraph, modules of data from library) configured to convert the three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph) data (pg. 31, table 1, "Performance

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Attributes" e.g., fiber shape, fiber composition) input by said three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph) input unit and data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of an attribute name (pg. 31, table 1, "Performance Attributes") associated with an attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) of the part to an output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) format that can be fetched by a simulator (pg. 30, 1st paragraph, lines 6-7, "selecting the appropriate MAPPS modules from the library...") ; and data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) means for outputting the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) converted by said converter (defined in the specification as "to be passed to a simulator with creating a two-dimensional drawing pg. 6, lines 6-8, thus selecting data or datum; pg. 30, 1st paragraph, modules of data from library).

Claim 3. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)apparatus according to claim 1, comprising attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition)input means for inputting data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute group (pg. 31,

table 1, e.g., fiber shape, fiber composition) of the part and the attribute name (pg. 31, table 1, "Performance Attributes") associated with the attribute group.

Claim 4. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 1, wherein the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) includes at least one of a transport guide, a transport roller, a polyester film, a flapper, a sensor, and a sheet transport path.

Claim 5. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 4, wherein when the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) is a transport guide, the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") associated therewith is a frictional coefficient (pg. 6, 2nd paragraph, line 7).

Claim 6. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 4, wherein when the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) is a transport roller, the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1,

"Performance Attributes") associated therewith includes at least one of a pressing force, a driving (pg.36, line 14 "driving force") condition, a frictional coefficient (pg. 6, 2nd paragraph, line 7), and an inertial force.

Claim 7. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 4, wherein when the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) is a polyester film, the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") associated therewith includes at least either of a Young's modulus (pg.8, 3rd paragraph, line 3) and a frictional coefficient (pg. 6, 2nd paragraph, line 7).

Claim 8. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 4, wherein when the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) is a flapper, the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") associated therewith is a driving (pg.36, line 14 "driving force") condition.

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Claim 9. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 4, wherein when the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) is a sensor, the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") associated therewith is a driving (pg.36, line 14 "driving force") condition.

Claim 10. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 4, wherein when the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) is a sheet transport path, the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") associated therewith is a path length of the sheet transport path.

Claim 11. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 1, comprising sectional view (pg.A-26, e.g., of a simulation sectional view) creating means for creating a sectional view (pg.A-26, e.g., of a simulation sectional view) by specifying a principal section based on the three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph) data (pg.



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31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the part and the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") associated with the attribute group.

Claim 12. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 11, comprising means for inputting at least one of the sheet transport path, a branch position of the sheet transport path, the order of the sheet transport path, and the position of a sensor on the sheet transport path in the sectional view (pg.A-26, e.g., of a simulation sectional view) created by the sectional view (pg.A-26, e.g., of a simulation sectional view) creating means.

Claim 13. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)apparatus according to claim 1, comprising attribute extraction means for extracting the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") used at a destination of output.

Claim 14. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)apparatus according to claim 13, data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition)

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wherein said converter (defined in the specification as "to be passed to a simulator with creating a two-dimensional drawing pg. 6, lines 6-8, thus selecting data or datum; pg. 30, 1st paragraph, modules of data from library) converts the output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)format of the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes")to be output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)to the destination of the output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) such that it matches the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes")to be output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)of the destination of the output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) such that it matches the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes")at the destination of the output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) extracted by the attribute extraction means.

Claim 15. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)apparatus according to claim 1, comprising reading means for reading a file in which the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition)of the part, the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name, and

the destination of output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) are defined as items.

Claim 16. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)apparatus according to claim 15, comprising correction means for making addition, deletion, and correction on each of the items defined in the file read by the reading means or a parameter (pg. 21, "variables" lines 1-8) of equal value.

Claim 17. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) apparatus according to claim 1, comprising parameter (pg. 21, "variables" lines 1-8) calculation means for automatically determining parameters (pg. 21, "variables" lines 1-8) of other attribute names by selecting a value for the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes")associated with the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition)with the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition) input means.

Claim 18. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)method comprising the steps of: inputting three-dimensional shape ("paper may be described as a 3-D shape, pg. 8,

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last paragraph)data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of a part used for transporting a sheet; converting the three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph)data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) and data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of an attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition)of the part and an attribute name (pg. 31, table 1, "Performance Attributes")associated with the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition)of the part to an output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)format that can be fetched by a simulator (pg. 30, 1st paragraph, lines 6-7, "selecting the appropriate MAPPS modules from the library...") ; and outputting the converted data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) shape data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition).

Claim 19. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)method according to claim 18, comprising the step of creating a sectional view (pg.A-26, e.g., of a simulation sectional view) by specifying a principal section based on the three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph)data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the part and the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber

composition) of the attribute name (pg. 31, table 1, "Performance Attributes") associated with the attribute group.

Claim 20. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) method according to claim 19, comprising the step of inputting at least one of the sheet transport path, a branch position of the sheet transport path, an order of the sheet transport path, and the position of a sensor on the sheet transport path in the sectional view (pg.A-26, e.g., of a simulation sectional view) created at the sectional view (pg.A-26, e.g., of a simulation sectional view) creating step.

Claim 21. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph) method according to claim 19, comprising the step of selecting an output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) destination to which data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the sectional view (pg.A-26, e.g., of a simulation sectional view), the three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph) data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the part, and the data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of the attribute name (pg. 31, table 1, "Performance Attributes") are to be output.

Claim 22. An aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)method according to claim 21, comprising the step of automatically selecting an item to be output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)according to the destination of output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)selected at the step of selecting the output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)destination and outputting the value of the selected item to be output (example of output data, pgs. 59, "Refining" section, with page 60 table 15)in a text file format.

Claim 23. A recording medium having a program recorded therein, the program causing an aided design ("MAPPS, Modular Analysis for Pulp and Paper Systems...simulation program, pg. 1, 1st paragraph)apparatus to execute the steps of: converting the three-dimensional shape ("paper may be described as a 3-D shape, pg. 8, last paragraph)and data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition) of an attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition)of the part and an attribute name (pg. 31, table 1, "Performance Attributes")associated with the attribute group (pg. 31, table 1, e.g., fiber shape, fiber composition)of the part to an output (example of output data, pgs. 59, "Refining" section, with page 60 table 15) format that can be fetched by a simulator (pg. 30, 1st paragraph, lines 6-7,

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"selecting the appropriate MAPPS modules from the library..." ; and outputting the converted data (pg. 31, table 1, "Performance Attributes" e.g., fiber shape, fiber composition).

## ***Section II: Response to Arguments***

### ***Abstract***

6. Applicants have not responded to this issue. Objection is maintained as set forth above.

### ***Claim Objections***

7. Applicants are thanked for responding to these issues. Objections are withdrawn.

### ***New Rejection***

8. Applicant's arguments, see page 6, filed 01/25/2007, with respect to the rejection of claim 1-23 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Project 3471.

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure:

- US Patent 5,838,596 teaches a simulation system which is capable of simulating the behavior of a sheet transported by a transportation system.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (7:00 am- 4:30 pm EST).



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If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Anthony Knight 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

A handwritten signature in black ink, appearing to read 'Anthony Knight', is positioned above the printed name.

Anthony Knight  
Supervisory Patent Examiner  
Tech Center 2100